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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------|-------------|-------------------------|---------------------|------------------|
| 10/606,586 | 06/26/2003 | David William Boerstler | AUS920020703US1 | 5097 |
| 45327 | 7590 | 03/23/2006 | | EXAMINER |
| IBM CORPORATION (CS) | | | | TRAN, THIEN F |
| C/O CARR LLP | | | | |
| 670 FOUNDERS SQUARE | | | ART UNIT | PAPER NUMBER |
| 900 JACKSON STREET | | | | 2811 |
| DALLAS, TX 75202 | | | | |

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|-----------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/606,586 | BOERSTLER ET AL. |
| | Examiner | Art Unit |
| | Thien F. Tran | 2811 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02/17/05 & 05/31/05.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
 - 4a) Of the above claim(s) 16-21 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-15 and 22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3)<input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | <ol style="list-style-type: none"> 4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ 5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6)<input type="checkbox"/> Other: _____ |
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DETAILED ACTION

Claim Objections

Claim 8 is objected to because of the following informalities: line 2, "the substrate" should be --a substrate-- for lack of antecedent basis. Appropriate correction is required.

Claim 10 is objected to because of the following informalities: line 2, "the substrate" should be --a substrate-- for lack of antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9, 11-15 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Barker (US 6,144,085).

Barker discloses an integrated circuit (1C) chip (Figs. 1, 3) comprising: a plurality of chip areas on the same chip (10), at least one chip area considered as a simulation area; a plurality of temperature sensors (Mh, Mc), at least one temperature sensor per chip area, each temperature sensor inherently generating an output having a distinct temperature-versus-output conversion characteristic wherein the output is proportional to the measured temperature; and a comparator (40) for comparing the output of any one of the plurality of temperature sensors with the output of any other of the plurality of

temperature sensors, the comparator further employable to generate a signal if the difference between the outputs of the plurality of temperature sensors exceeds a threshold, wherein the comparator inherently compensates for different temperature-versus-output conversion characteristics between any two of the plurality of temperature sensors.

Regarding claims 2 and 12, the temperature sensor measures a temperature to generate a voltage (voltage sensing mode, col.1, lines 30-40).

Regarding claims 3 and 11, the temperature sensor measures a temperature to generate a current (current sensing mode, col.1, lines 30-40).

Regarding claims 4 and 13, the temperature sensor (1b) comprises a pn junction (13, 14 in Fig. 4).

Regarding claims 5 and 14, the temperature sensor comprises a thermal resistor (col. 1, lines 55-65).

Regarding claims 6 and 15, the comparator is coupled to the chip (10).

Regarding claim 7, the comparator compares voltages generated from the plurality of temperature sensors.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barker (US 6,144,085).

Barker as described above further discloses a gate dielectric layer (24) interposed between a substrate of the integrated circuit (10) and a computational element (gate 23) of the integrated circuit. However, it is conventional to form the gate dielectric layer (24) of silicon dioxide. Therefore, forming the gate dielectric layer (24) of silicon dioxide would have been obvious modification.

Response to Arguments

Applicant's arguments with respect to claims 1-15 and 22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

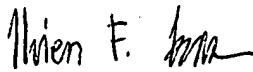
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien F. Tran whose telephone number is (571) 272-1665. The examiner can normally be reached on 8:30AM - 5:00PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on (571) 272-1732. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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March 17, 2006


Thien F. Tran
Primary Examiner